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INFORMATION ABOUT

# Diverticular disease

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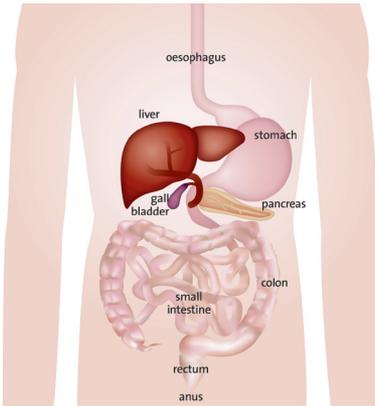
# How common is diverticular disease?

Diverticular disease is extremely common. Between one-third and half of the population of Western Europe and North America will get diverticula in the colon during their lifetime.

**The likelihood of having the condition increases as we get older. Less than one person in 20 has the condition before the age of 40, rising to a quarter by 60 years of age, and two-thirds by the age of 85. Most people with diverticula suffer no symptoms or complications whatsoever. Indeed, as many as three people in four with diverticula are quite unaware they have the condition. It is just not clear why a minority end up being unwell.**

## **? What is diverticular disease?**

Diverticulum is a Latin term meaning a side-branch or pouch. When such pouches stick outwards from the wall of the large intestine (also known as the colon) we call this diverticular disease. It can be hard to understand how these pouches occur but try to imagine your large intestine as being similar to a bicycle tyre with a soft easily stretched inner tube and a tough outer tube. If a hole is made in the outer tube, when the inner tube inflates, it squeezes out through the hole. Like the tyre, our intestine has a soft flexible lining surrounded by a tougher outer tube of muscle. There may not be a hole in the outer tube as such but where there is a weakness in the muscle, the inner layer can push through it to form the pouch that we call a diverticulum. The term diverticula is used when there is more than one diverticulum in the bowel.



**WHY DOES IT HAPPEN TO SO MANY PEOPLE?** The answer almost certainly relates to our diet. We eat far less fibre in our highly refined Western diet than people who live in developing countries, where diverticular disease is much less common. Because most of us in the affluent West just don't eat enough fibre, this increases our chances of getting diverticular disease, possibly because of a tendency to constipation and straining.

**? What is the difference between diverticular disease and diverticulitis?**

The medical terms can seem a little confusing. If diverticular disease is so common yet causes no symptoms, is it fair to call it a disease? Some authorities call uncomplicated diverticular disease by the name diverticulosis. Diverticular disease is a term mainly used in people who develop symptoms. You may hear the term 'diverticulitis' which strictly means the condition that occurs when a single diverticulum or several diverticula become inflamed.

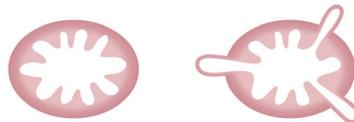
**? Where do diverticula occur in the intestine?**

By far the most common site for diverticula is in the lower part of the colon. Diverticula do occasionally occur in the small intestine and some other parts of our insides but here we focus just on those that occur in the colon.

Diverticular Disease: External appearance



Diverticular Disease: Cross section



### **? Why do we think that eating a Western diet causes diverticular disease?**

Fibre is roughage – that part of our diet we can't digest and which passes through us. The more fibre we eat, the larger our stools. So if we don't eat much fibre, this means we pass rather smaller stools. Just like it becomes harder to squeeze toothpaste out of the tube when there is not much toothpaste left, so the smaller the stool, the harder the intestine has to squeeze to push it along. Over many years, this high pressure pushes out the lining of the intestine through its outer wall to form the pouches that result in diverticular disease.

### **? Can the development of diverticula be prevented?**

It is not possible to answer this question. Such evidence as we have suggests that the best chance of avoiding diverticula is to increase the proportion of fruit, vegetables and cereals in the diet. This seems wise but there needs to be a long-term and sustained change in an individual's eating habits in order to reduce the chance of getting diverticular disease. Of course, there seem to be several other health benefits of a high-fibre diet.

### **? What are the symptoms of diverticular disease?**

Some people experience persistent abdominal symptoms such as pain, often quite low down in the left side of the abdomen, together with bloating and an irregular bowel habit. Patients may be constipated whilst others have diarrhoea. Some have an irregular bowel habit with constipation for a period followed by days when they have diarrhoea. It can be very unpleasant if you need to reach a toilet in a hurry. Nevertheless, the pattern of symptoms does vary from one person to the next.

### **? What complications can occur?**

Complications are fairly uncommon. When a diverticulum or several diverticula become inflamed, this leads to diverticulitis which causes unpleasant pain, fever and a feeling of being quite unwell. If the inflammation is exceptionally severe, the diverticulum can burst which can lead to peritonitis – a serious condition with widespread inflammation within the abdomen. Sometimes, scar tissue can form around the inflamed diverticulum. This may lead to narrowing of the colon which, if it becomes narrowed enough, can cause a blockage. A blood vessel in the wall of a diverticulum can rupture leading to bleeding into the colon. Most people with diverticular disease never get any of these complications.

## ? How is the diagnosis of diverticular disease made?

In essence, the doctor needs to see what your colon looks like. The most frequent way of doing this nowadays is by passing a tube through the back passage to visualise the inner surface of the colon (sigmoidoscopy or colonoscopy – depending on how much of the intestine the doctor wishes to see). Alternatively, a barium enema x-ray is a reliable method of showing whether there are diverticula. Both techniques will require you to take something to clear out the bowel beforehand. It is very important that the doctor looks carefully for any other abnormalities that might cause your symptoms. This is because diverticula are common and they may be quite incidental – in other words, they are there but they are unlikely to be the cause of your symptoms.

## ? What should I eat?

Keeping the stools relatively soft and bulky may reduce the likelihood of more diverticula developing and may reduce the risk that hard pellets of faeces lodge within the pouches. In principle a diet high in plant fibre achieves both aims. Try to eat a mixture of high fibre foods. Fruit, vegetables, nuts, wholemeal bread and pasta, wholegrain cereals and brown rice are all good sources of fibre. Aim to have at least one high fibre food with each meal and try to have five portions of fruit or vegetables each day, but avoid a very high fibre diet if this seems to make things worse. Drink at least two litres (eight to ten cups) of fluid every day.

People with symptoms from diverticular disease respond differently to fibre in the diet. One person may be helped by increasing the amount of plant fibre in the diet, another may feel that their symptoms become worse. The type of fibre one eats may usefully be varied. Some people find that it helps to take fibre in the form of fruit and vegetables (soluble fibre) rather than that in cereals and grains (insoluble). This is because insoluble fibre may cause more bloating and pain. Bran aggravates symptoms for some people and is not routinely recommended. Avoiding large or fatty portions of food is a common sense measure if symptoms are worse after meals. It is not possible to make rules about diet which suit everyone - an element of trial and error in what we eat is often helpful in finding what fibre suits us best.

## ? Do symptomless diverticula need treatment?

No treatment is necessary for diverticula that are discovered incidentally. However, it may be wise to suggest a high-fibre diet to try and prevent symptoms from developing later. It is not certain whether taking more fibre will necessarily prevent such symptoms.

## Medical treatment of symptoms

There is no specific treatment for persistent pain, bloating or an irregular bowel habit. The dietary measures described above may be helpful. It is possible to take medicines which contain fibre such as ispaghula husk or methyl cellulose preparations which soften the stools. Your pharmacist will be able to advise. Some doctors may prescribe an antispasmodic drug but the results are often disappointing. An antibiotic may be tried if inflammation is suspected but pain-killers such as codeine should be avoided as they tend to cause constipation.

### ? When is urgent medical help needed?

You should go to the doctor if unexpectedly severe pain and tenderness occur in the lower abdomen, especially if you feel you may have a temperature. This might indicate that your diverticula have become inflamed and that you have developed diverticulitis. If the doctor suspects diverticulitis you are likely to be prescribed an antibiotic and you may also be advised to take fluids only (rather than solid food) or maybe a low residue diet as a temporary measure. This treatment will rest the bowel and may allow the inflammation to subside. If the condition is severe, admission to hospital may be needed.

## Surgical treatment

After two or more episodes of diverticulitis, you may be advised to have a surgical operation to remove the affected segment of the colon in order to prevent further episodes and, more importantly, prevent a serious complication during a later episode. Approximately one third of those who require urgent admission to hospital for an episode of inflammation require surgical treatment during their stay because an abscess has formed around the colon or infection from the inflamed diverticulum has spread more widely within the abdomen.

It is important to realise that:

- most people with diverticular disease never get any symptoms at all;
- if symptoms do arise, they are not likely to be serious;
- relatively few patients ever get complications severe enough for them to be admitted to hospital;
- very few people die of this very common disease.

### ? What research is needed?

Although we think we know why diverticular disease develops, we do not really know why serious complications sometimes occur. We need to understand much more clearly why some people get diverticulitis – if we understood that, we might be able to prevent it from happening. The development of effective treatments to prevent diverticular disease from getting worse is an important priority.

Updated February 2011

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## Core is the charity for research and information on gut and liver disease

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T: 01273 420983  
www.cmprint.co.uk  
E: andy.jarred@cmprint.co.uk